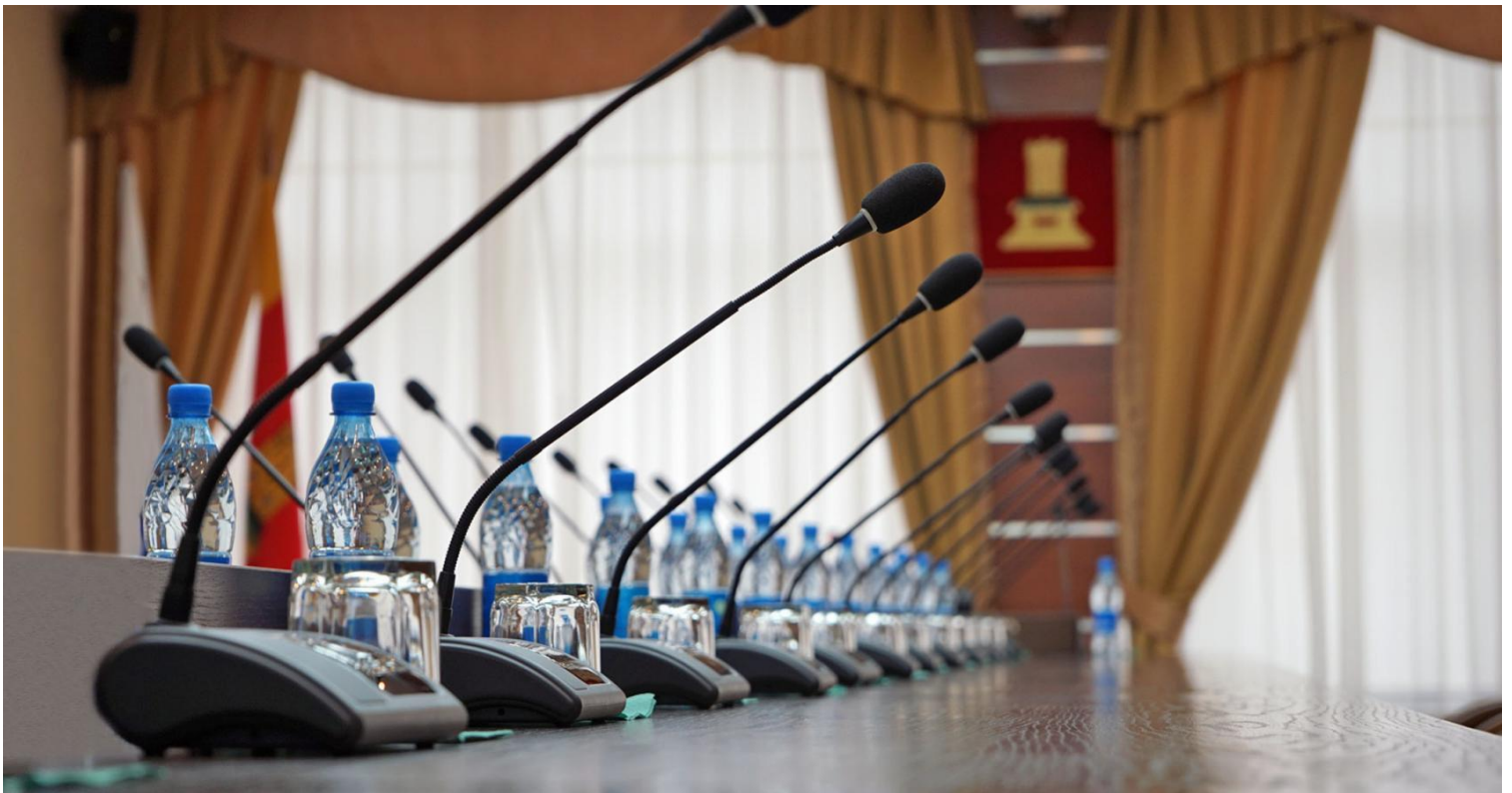


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# DCS-2000 Wireless Conference System

## PRODUCT DATASHEET



# Next Generation **5GHz Wi-Fi Wireless** Conference System, with High Tech in DSP unique Sound Processing 5GHz Wi-Fi Wireless Conference System

## **Standard Wi-Fi Communication**

DAEWOO wireless conference system is an innovative system based on standard Wi-Fi technology and self-adjustment technology. The system work in the 5GHz band and get the 44 channels for communication to coexist with another Wi-Fi network. The unique self-adaptive technology is strong anti-interference ability ensure the system interference-free and highly flexible for different application. The standard Wi-Fi Technology make the system can work in around the world and no ISM limit.

## **Ease of Use**

The system is no additional cabling and testing and run under the 20 meters radius of Wi-Fi signal which is full 360-degree coverage. All microphone units automatically identify the access point and communicate with WPA2 secure connection to ensure the conferencing safety.

## **Compact yet versatile design**

The product design reflects the elegant, yet compact and easy to use features. Conference unit features a graphical interface operating area, including lighting reminder, anyone can get started quickly. Easy to install, user-friendly to use, and is designed to ensure higher productive meetings.

## **Excellent legibility sound**

Advanced voice processing technology, with the unique design of the microphone head, this unit can be accurate pickup and restore the human voice through a high-quality built-in speaker or an external PA system, original DAISY-CHAIN digital ring network technology, Automatic Gain Control Volume (AGC) / automatic frequency control (AFC) technology help reach higher volume without triggering the howling effect, ensures clear sound to every person in the room.

## **High tech intelligence platform**

Timing function, overtime speaking reminder, voting results multi-platform synchronization, network control and meeting management, conference Smart reservation, worldwide firmware real-time updates, the integration of IT technologies ensures smart conferencing platform, the DAEWOO is one of them.

## DCS-2000W

Digital Networked DSP Conference Processor



### Features

- The unique digital ring network technology achieve full-digital signal transmission and processing
- One CAT5e cable to transmit up 64 channels audio and other signals.
- All microphone units support audio, ID independent output. Working with voice recognition system to achieve voice role separation.
- High-fidelity sound quality by lossless audio transmission technology, 48K audio sampling rate and 20Hz ~ 20KHz frequency response
- A single conference controller can realize the independent control and merging of 4 conference rooms, can handle the cascade of multiple conference controllers to realize the merging and separation of larger conference rooms (Optional) ability to group and control 4 independent microphone line.
- "Hand-in-Hand-Loop-Network" connection makes the system always working perfectly no matter changing discussion unit or having any malfunctioned units
- The sensitivity of the unit microphone and 8 segment equalizer EQ adjusted independently
- Conference controller can output 16 segment equalized EQ to achieve sound field adjustment; pressure limit, which can recognize the noise gate passed by human voice. AGC automatic volume gain control; AFC automatic feedback suppression and auto-mix technology.
- Sound output by separated zones function, each zone is automatically adjusted according to the volume of the position of the microphone, achieve longer distances pickup without whistle.
- Echo cancellation, remote two-way real-time call with another conference controller or another third-party video conferencing terminal.
- Memory capacity: USB memory ROM 32Gb (Via included USB stick), internal CPU with RAM memory, controller monitor, advanced noise cancellation technology to realize clearer recording.
- System date, time management, and support count-down speech.
- Optional DANTE output module with other DANTE equipment used.
- Optional 4th output RJ45 port for chairman unit, delegate unit, translation unit and other microphones. The 4th port is above the audio link port.
- Can drive 2x120W POE speaker, through extension main unit, support up to 16 POE speakers.

### Functions

- Compliance with IEC 60914, GBT 15381-94
- Connect with VIS-EXM full-digital extension main unit, it can expand to 5200 discussion units
- "Hand-in-Hand-Loop-Network" connection and the system assigned to each unit independently ID to avoid ID conflict.
- Both wired/wireless discussion units can connect to the controller, fast and easily to adding delegate of meetings.
- Up to 8 wireless microphones to be turned on at the same time, adaptive avoiding interference technology to achieve stronger anti-interference ability, compliance with IEEE 802.11n standard Wi-Fi both for 5GHz.
- 2 channel audio input, XLR or RCA type, for local audio input or remote video-conferencing input.
- Maximum 8-channel audio output, XLR, RCA or Phoenix type, can be connected to simultaneous interpretation output or partitioned output.
- Add the audio input box, the system can be connected to other condenser microphones or dynamic microphones, more choices for users.
- Built-in multi-way internal communication function.
- TCP/IP connection between controller and PC
- RS232 central control, realize microphone switch, priority, volume and other controls.
- RS232 or RS485 to send the PELCO/VISCA protocol to realize camera auto-tracking function.
- Hot plug-and-play and auto-recovery function.
- Wide range of voltage from 100V~240VAC
- Without using PC software, our conference controller still owns following settings:
  - Limit on the number of speaking persons: By Setting the number of active units at the same time (Number is 1/2/4/6/ units), supports up to open 32 wired microphones in full-on mode.
  - Discussion modes:  
"OPEN" Free for all, limited by the active units setting by controller, "VOICE" Can activate MIC by detecting sound without press button, "OVERRIDE" First in First out, "APPLY" To apply then to speak, "PTT" Press to speak(Optional),"ALL" Full open mode(Optional).
  - Voting function: Approve/Abstain/Object
  - Chairman unit has priority to close all other units or mute them temporarily
  - Chairman unit can consent the application for speaking from delegate
  - Simultaneous language interpretation
- With PC software to add more ways of voting:
  - Approve/Object
  - Approve/Abstain/Object
  - Level : 1/2/3/4/5
  - Ranking : --/0/+/++
- By using RFID card to identify, can realize voting with names.

### Control & Indicators

- LCD display to show all the operations
- 4-Way button for menu operate
- One-button press to start recording
- Light indicator
- Master volume control knob

### Interfaces

- Front panel USB recording interface
- 3.5mm headphone for monitoring 1x RCA audio input
- 1x XLR audio input 1x RCA audio output 1x XLR audio output
- 6x Phoenix audio output connector 2x RJ45 digital audio connection
- 2x RJ45 for chairman unit, delegate unit, 1x RJ45 for wireless AP or router
- 1x DP9 male interface for external control 1x DP9 female interface for camera
- 1x three-pin phoenix interface for camera control keyboard 1x RJ45 for network switcher
- 1x grounding screw
- 1x 100 ~ 240V AC Power Interface

### Technical Parameters

- Power 100V / 240V AC
- Static power consumption 12W Maximum power consumption 150W Frequency Response 20Hz ~ 20KHz Noise ratio (S / N) >96dBA
- Total harmonic distortion <0.05% Channel Crosstalk> 85dB Dynamic range >94dB
- RS-232 control: 1x9-pole Sub-D female socket 1x9-pole Sub-D male socket Ethernet control: RJ45 connected to PC
- Mounting: 19" standard rack Dimensions (mm) 481L x 265W x46H Weight: 3kg
- Black color
- Max. audio inputs LINE IN 1: +10dBu LINE IN 2: +10dBu
- Max. audio outputs
- LINE OUT 1: +12dBu BAL.
- LINE OUT 2: +12dBu BAL.
- LINE OUT 3: +12dBu BAL. LINE OUT 4: +12dBu BAL.
- Output impedance: >1k $\Omega$
- PC communication method: TCP/IP Camera control method: RS-232/UDP Network Interface: RJ45
- Display: LCD1602
- Limit on the number of speakers: 1/2/4, max in 6 persons Camera Tracking Protocol: PELCO-P/PELCO-D/VISCA
- Operating temperature: 0~45°C Storage temperature: 20~50°C

## DCS-DWC | DCS-DWD

Wireless Digital Discussion Chairman | Delegate Unit



### Features

- Stylish, low profile design with touchable interface
- Wireless communication, setting up all system in few minutes to be ready for using, and put them away in short time as well
- Built-in DC connector for power supply without battery
- Detachable battery pack is easy to replace and charge, 4 hours to fully charged. Can use 24 hours continuously
- Internal high-fidelity loudspeaker
- Pluggable microphone and long-range sound pickup ability, support different length of microphone.
- 2.23-inch OLED display with backlight, with status of signal and battery indication icon
- Head-set interface in both sides with volume adjust
- Line-in interface which allows microphone or another line-in device like cell phone, laptop to pass audio through to perform teleconference
- Full-digital signal transmission and processing, completely avoid the RF interference from cell phone or similar devices.
- The unit showing time/date on the screen. Timer on display to set certain time for each delegate to speak will remind user or close the MIC automatically.

### Functions

- Standard Wi-Fi technology is compatible with other Wi-Fi networks, support 5GHz on all channels.
- Full-digital transmission and processing technology in uncompressed audio, professional microphone to achieve perfect sound quality at 20Hz ~ 20KHz;
- 128 bits digital encryption technology, with WAP2 secure connection, MAC address filtering, SSID-hiding to prevent wiretapping and unauthorized access from delegate unit
- One AP can work with more than 40 wireless units, and more units can be connected by extension AP's, 6 wireless units can be activated at the same time by the users
- Support more AP working together to increasing the Wi-Fi coverage range for wireless MIC units working in a large conference room or multi-rooms
- With our HD PTZ camera and video matrix switcher, using RS485 or RS232 protocol to send the PELCO/VISCA protocol to realize camera auto-tracking function
- Precise cardioid directional microphone capsule with anti-wind microphone foam, with two-color LED indicator
- Button for MIC ON/OFF, Priority & Apply Answer button for chairman unit
- Built-in high-fidelity speakers, it automatically mutes to prevent howling when press MIC ON
- Head-set interface in both sides with volume adjustment.
- AGC (Automatic Gain Control) | AFC (Adaptive Feedback Cancellation)  
ANC (Active Noise Control) | Mix (Auto-Mix) technology
- Limit on the number of speaking persons: By Setting the number of active units at the same time (Number is 1/2/4/6/ units)
- Discussion modes:  
"OPEN" Free for all, limited by the active units setting by controller,  
"OVERRIDE" First in First out, "VOICE" Can activate MIC by detecting sound without press button,  
"APPLY" To apply then to speak
- The unit showing real time on the screen, and count-down timer for speaking person.
- Detachable battery pack is easy to replace and charge, 4 hours to fully charged. Can use 24 hours continuously, power-saving technology to enable 24 hours continuous use and 48 hours for standby.
- Combined with camera and camera tracking controller, it has an automatic camera tracking function.
- With 2.5mm adapter power supply interface, used for emergency power supply.
- Built-in MCU, support wireless upgrade of all units.
- With voice control function, you can adjust the sensitivity of voice control, intelligently turn on the microphone and set the off time.

### Control & Indicators

- Microphone with two-color LED ring, red indicates speaking status, green indicates request to speak.
- 128x32 OLED display with volume bar, clock, time span of microphone activating, MIC ON/OFF etc. and other information.
- Indicator for Volume adjustment Indicator for MIC ON/OFF
- Chairman unit with priority button and consent button for the delegates Power ON/OFF button is hiding on the left side

### Interfaces

- Pluggable gooseneck microphone base 2x 3.5mm stereo headphone jack
- 1x 3.5mm stereo input jack Contactor for battery pack
- DC Connector for power adaptor

### Technical Parameters

- Button: Touchable interface
- Sound Pickup: heart type capacitance Display: OLED display 128 × 32 Sensitivity: -46 dBV / Pa
- Maximum power consumption: 2.0W Directivity: 0 ° / 180 ° > 20 dB (1 kHz) Headphone load: 16Ω
- Headphone volume: 10mW Headphone jack: 3.5mm stereo Input impedance: 2kΩ
- SNR: 70dB
- Frequency response: 20 ~ 20000Hz Equivalent noise: 20dBA (SPL) Main material: ABS
- Operating temperature: 0 °C to + 55 °C Color: Black
- The maximum sound pressure: 125dB (THD <3%) Weight: 1.1kg (with microphone)
- Dimension: 195L × 120W × 60Hmm (without microphone)

### Supported Accessories

- DCS-DWC Wireless Discussion Chairman unit
- DCS-DWD Wireless Discussion Delegate unit
- DCS-BTY Battery Pack, 8.4VDC, 6600mA
- DCS-WCH 8 Batteries Charger Module
- DCS-M220 Pluggable Gooseneck Microphone 220mm, unique design
- DCS-M330 330mm Microphone, with anti-wind foam cover
- DCS-M410 410mm Microphone, with anti-wind foam cover
- DCS-M485 485mm Microphone, with anti-wind foam cover
- DCS-M600 600mm Microphone, with anti-wind foam cover

## DCS-AP5

5GHz Conference Access Point



### Features

- Connect with the Wi-fi conference processor DCS-2000W, or with the switch to extend more conference AP in the same system.
- Typical coverage range 25 meters
- Each AP can connect up to 50 conference units.
- Install on ceiling, wall or with stand rack mount
- 128 bits AES digital encryption technology, with WAP2 secure connection, MAC address filtering, SSID-hiding to prevent wiretapping and unauthorized access from delegate unit

### Functions

- LED indicator for signal/power
- 5GHz dual band communication
- LAN support POE power supply
- RJ45 for LAN connection

## Technical Parameters

<b>RADIO FREQUENCY</b>	
WLAN Standard	IEEE802.11ac, IEEE802.11a, IEEE802.11g, IEEE802.11b
RF Frequency Bands	5GHz UNII
Max Transmission Power	27dBm
Antenna Type	Four built-in 5dBi antennas
<b>POWER</b>	
Supply Type	Power Over Ethernet, 802.3at, DC 12V 1.5A
Supply Voltage (at Power Consumption)	≤13W
<b>NETWORK</b>	
Interface	1×Gigabit WAN/POE Port, 1×Gigabit LAN Port
Link Speed	1200Mbps
Networking Addressing Capability	DHCP or Manual IP address
Cable Length	100m (max)
Cable Type	≥ Cat5e (shielded / unshielded)
Connector Type	1× RJ45
Connector LED	WAN/POE Port (UP LED), LAN Port (Down LED)
<b>USER INTERFACE</b>	
LED Status Indication	Power, Network Audio, Wireless (Yellow / Blue)
Reset	Push button for Factory Reset
<b>MECHANICAL</b>	
Dimensions	220L×220W×45H (mm)
Color	White
Weight	0.3KG
Mounting Type	Ceiling, Wall or Stand Rack
Transmission technology	WIFI 802.1n
Encryption technology	WPA2-PSK AES
Working frequency	5.2-5.8 GHZ

## DCS-BTY

Rechargeable Battery pack for wireless unit



### Features

- Long life and lasting stability of charging performance
- After fully charged it can use 24 hours
- Four hours needed to fully charge
- Efficient lithium batteries

### Functions

- Contactor by pop-up pins
- Buckle housing to prevent poor contact or dropping

### Technical Parameters

- Battery capacity: 4900mA
- Output voltage: 7.2VDC Weight: 285g
- Operation temperature: -20°C~60°C

## DCS-WCH

Charger Station for DCS-BTY Battery



### Features

- Three hours needed to fully charge
- MAX 8 PCs battery charging at one time
- Wide range power input: 100V~240V AC
- Buckle housing to prevent poor contact or dropping, light in weight for easy moving

### Functions

- Contactor by pop-up pins
- Buckle housing to prevent poor contact or dropping

### Technical Parameters

- Input: 100 ~ 240VAC 50 ~ 60HZ
- Output: 7.2V/1000mA Power consumption: 20W
- Size: 320Lx200Wx50H (mm) Weight: 2KG